

# THE LATE RALEIGH ADELBERT BLACK (1880-1963) AND HIS PRIVATE HERBARIUM

by

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## Biographical Details.

On 2 July 1963 a long life of devoted service to botanical science in south-eastern Australia closed with the death of Mr. Raleigh A. Black, latterly of Mont Albert, Victoria. He was the second son of the second marriage of Reverend Joseph Black, M.A., D.D., a Theological Tutor at Aberdeen. Dr. Black migrated from Scotland to Hobart where he became a co-founder of the Tasmanian University in January 1890, sat on the Senate thereof, and was Principal of the Presbyterian Glebe Ladies' College. There were also four daughters in the family.

Raleigh, who was born on 11 March 1880, had a serious fall from a swing when three years of age and suffered some cranial damage. Although physically active enough, he became a "difficult" child at home and at school—disobedient, openly rebellious and of a generally incorrigible disposition. At the age of eight, he began complaining of headaches whenever he was given any kind of learning to do; the distraught parents eventually had him examined by their family doctor. The apparent cause of the headaches and delinquency was diagnosed by the doctor who gave hope of a gradual improvement, provided that the boy could be taken from school and put to some trade where he could use his muscles.

Thus, when about twelve years old, R. A. Black began work as a "printer's devil" with the printing section of the *Tasmanian News*—an evening newspaper that lapsed in 1911. He first laboured in the grimy engine room, then at bookbinding, and finally as a type-setter in the compositor's room. The life, if rough, was congenial and doubtless served to shape his later interest in the origin of words. His first important position was a clerical one in the Treasury Department and, while in his teens, Black paid £1 to the New York Institute of Science for a course of memory training. As a result, he was able to perform such feats as reading out a jumbled series of 100 figures and then, an hour later, to repeat them all in reverse order. It is sadly ironical that his chief handicap, during the last few years of life, should have been loss of memory.

Black evinced an early interest in natural history: he made a collection of Tasmanian beetles and achieved some reputation as an entomologist. The Under-Treasurer came to know of this and asked if he would be prepared to undertake a survey of every orchard in Tasmania, in order to determine the incidence of San José Scale which was then causing concern in the Island. Working in association with Arthur Mills Lea, the Government Entomologist (who transferred

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\* National Herbarium of Victoria.

to Adelaide Museum in 1911), Black travelled constantly for three months and carried through the San José Scale investigation before he was 21. Soon afterwards he obtained a permanent appointment with the Council of Agriculture (later the Agricultural and Stock Department).

About this time (1900) he wished also to improve his knowledge of plant life; so, carefully polishing several sovereigns, he offered them to the honorary Government Botanist, Leonard Rodway, with a request to be given some tuition in botany. Mr. Rodway returned the money, saying that he would be glad to teach young Black all that he knew about the Tasmanian flora. Henceforth, botany became his all-consuming interest; and eventually the pupil outstripped his master in several avenues, forming his own herbarium collection and beginning to publish the results of his independent researches. Over the years he brought out a number of pamphlets dealing with weed problems—e.g. Onion Grass (*Agric. & Stock Dep. Bulletin* n. 93, in 1920)—and he conducted growth experiments with pasture grasses at Campbelltown during 1920–21. His personal association with Rodway lasted for 26 years, and contact was maintained by correspondence up to the time of Rodway's death in 1936. Gratitude to his old mentor is manifest in a fine Appreciation—"Leonard Rodway, C.M.G., L.D.S., L.R.C.S. (London) etc. Late Tasmanian Government Botanist"—published in *Australasian Herbarium News* n. 6: 1–5 (Apr. 1949), n. 8: 3–8 (Apr. 1951).

Raleigh Black was elected a member of the Royal Society of Tasmania on 18 March 1912, but resigned on 20 December 1926 upon departure from the State. He was also a member of the Royal Geographical Society (London), an original member and later treasurer of the Tasmanian Field Naturalists' Club (founded at Hobart in 1904) and an enthusiastic mountaineer. He helped to establish a Mountain Club which functioned for five years (July 1911–July 1916), meetings being held at the home of a close friend, Ernest Rodway, son of the Government Botanist and treasurer of the Club. The exigencies of World War I were chiefly responsible for dissolution of this worthy organization; but, during its short life, members climbed or visited such far-flung objectives as the Hartz Mountains, Adamson's Peak, Lake Petrarch, Mt. Field East, Mt. Olympus, Frenchman's Cap, The Thumbs, Mt. Roland, Mt. Barrow and Ben Lomond, as well as many summits nearer Hobart. Everywhere he went, Black continued to gather botanical specimens and to build up one of the most representative collections of Tasmanian plants in existence.

On 20 September 1917 he married Elsie Thorby Noakes, daughter of Agnes and Edward Thorby Noakes who was a pharmaceutical chemist and dentist. The Blacks' home was later blessed with two sons and a daughter.

With an inventive turn of mind, he had aided the departmental Poultry Expert, Robert J. Terry, in perfecting an incubator to hatch out chickens, and he also devised a wine bottle that could not be

refilled (nor the contents contaminated). In the *Hobart Mercury* of 6 June 1914, there appeared an account of another invention by Black: a disease-proof drinking trough for stock and other animals, one that was highly commended in Melbourne by Dr. J. H. L. Cumpston, Director of Quarantine.

After 26 years as a public servant, Black found himself burdened simultaneously with the following offices: Acting Director of the Agricultural and Stock Department, Assistant Government Entomologist, Registrar of Stock Brands, Inspector under the "Vegetation Diseases Act", "Codlin Moth Act", "Hay and Chaff Act" and four other kindred Acts, Customs Officer under the "Federal Commerce Act", Federal Deputy Chief Quarantine Officer for animals and Chief Quarantine Officer for Plants—but with no Government emoluments other than his normal salary for a single position! He was conscious also of departmental jealousies, coupled with some political pressure, and it was a relief when an unexpected opportunity came for him to leave Tasmania.

Thus, toward the end of March 1926, Raleigh moved with his young family to Sydney where he was employed as manager and private secretary to Colonel Bjelke-Petersen, head of the large School of Physical Culture. Colonel Petersen linked up his new manager with the "Millions" Club so that he could get in touch with leading businessmen, the legal and medical professions, etc. It was an exciting life, and the regular physical exercises at the School proved of immense benefit. Later, Black was responsible for the introduction of fencing into the curriculum, became very proficient in the art himself and, as Fencing Master, taught the classical Austrian type of duelling.

With scientific leanings as strong as ever, he lost no time in taking membership with the Naturalists' Society of New South Wales, and from about the middle of 1927 until October 1931 he was secretary to this body. His first contribution to the Society's journal, *The Australian Naturalist*, was a note on four species of Tasmanian berries (Vol. 7: 1–3. June 1927) and several other papers on a wide variety of subjects appeared over the next three years.

With the onset of the great financial depression, Black came to Melbourne late in 1931 and worked for "Pivot Superphosphates" (Phosphate Co-operative Company of Australia Ltd.) as a country traveller. His beat was the whole north-eastern portion of Victoria and adjoining districts of the Upper Murray in New South Wales. This itinerant occupation afforded excellent opportunities for botanical collecting, and he concentrated mainly on grasses, sedges and rushes. The present writer accompanied him by car for a memorable week in January 1938, visiting Seymour, Yea, Mansfield, Whitfield, Myrtleford, Mt. Buffalo, Bright and the alpine road from Harrietville to Omeo (across Mts. St. Bernard and Hotham). Among the plant material collected then were specimens of 75 species that the writer



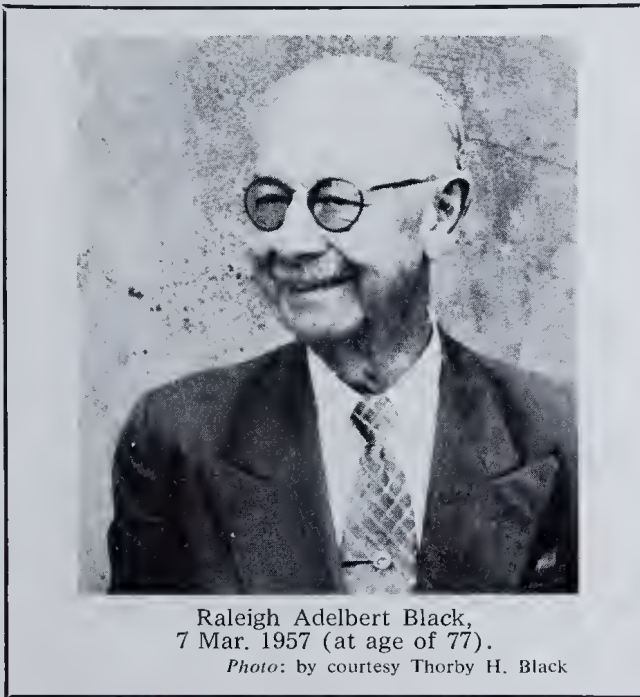
had not previously seen in a living state, and one rare sedge proved to be new to science—it was described the following year by E. Nelmes (Kew Herbarium) under the name *Carex raleighii*, in Black's honour, and just a decade later (Jan. 1948) the discoverer himself found it again at The Steppes in central Tasmania (between Lake Sorell and the Great Lake). Invariably cheerful and friendly of approach, he made an admirable travelling companion and was a good conversationalist too—full of anecdotes and astonishingly catholic in his tastes which ranged from botany to mountaineering, sport, animal husbandry, chemistry, poetry, philology, classical and colonial history and theology.

Raleigh Black's work on the *Gramineæ* and *Cyperaceæ* brought him into contact with leading specialists, e.g. S. T. Blake at Brisbane, Joyce W. Vickery at Sydney, C. E. Hubbard and E. Nelmes at Kew (England), Agnes Chase and Jason Swallen at Washington (D.C.), to all of whom he donated specimens. He retired from the "Pivot" Phosphate Co-operative Company on 11 July 1945, and thereafter concentrated on herbarium and laboratory work at home.

About this time he became increasingly absorbed in the physiological processes of woody plants, particularly that of water movement through the vessels. He conducted endless experiments with solutes, pressure gauges and thermometers, and during 1945 he completed two mss.: on the "Cause of the Ascent of Water in Plants" and the "Function of Bordered Pits". Black believed that previously published theories were untenable and that he had discovered the true explanations. He submitted his lengthy reports to plant physiologists in the various Australian Universities, and was disappointed by the lukewarm, if not sceptical or even derisive, reception accorded them. It was generally felt that, apart from undue verbosity and a vagueness of terminology, the theses were based upon too many assumptions and were variously unsound from the mathematical and physical standpoints. Another preoccupation was with two more inventions for which he sought patent rights: a *dripless spout* (for teapots, jugs, flasks, saucepans, etc.) and a *self-sealing paint-brush holder*. The writer saw models of both, and they certainly justified the claims made by their inventor. After World War II he re-visited his native State on several occasions, and established a "Dripless Spout" Syndicate with several businessmen in Hobart. He was in Tasmania for nine weeks during the period 18 April–21 June 1947, first travelling along the north coast to Woolnorth Point and Cape Grim in the extreme N.W. of the Island. Again, in the summer of 1948 (Jan.–Feb.) he spent another eight weeks botanizing in central and southern Tasmania. As a result of the latter expedition he wrote an informative article "Wild Berries of Tasmania" for the *Tasmanian Naturalist*, published in its new ser. 1 n. 3: 1–7 (May 1948) and 1 n. 4: 1–8 (May 1949).

R. A. Black was always a deeply religious man, with strong Christian convictions, but he was also tolerant of others who thought differently and was receptive to new insights or revelations. As a

Presbyterian Elder he regularly attended worship at St. Stephen's Church in Surrey Hills. Toward the end of 1951 he surprised old associates by joining the Church of Jesus Christ of Latter Day Saints (Mormon fraternity) wherein he found solace and for which he helped to establish a mission Sunday School at Mont Albert. For the next six years he was engrossed in genealogical researches and paid scant attention to botany, but he remained an enthusiastic member of the Royal Historical Society of Victoria. After the transfer of all his plant collections to Melbourne Herbarium in August 1957, his old interest revived and he often visited the City to work at these specimens; but, within three more years, failing memory had rendered such visits impossible. It was pathetic to perceive the helplessness of a mind once so alert and retentive.



In his heyday Raleigh Black was a thickset, erect and commanding figure, a little more than 12 stone in weight. His brown, bespectacled eyes and smiling face beamed good humour, and he was courteous to a fault; one instinctively felt glad to meet him. This remarkable, largely self-taught and many-sided man was undoubtedly the most important collector of Tasmanian vascular flora during the first half of the present century.

#### **The Raleigh A. Black Herbarium.**

In October 1952 Mr. Black estimated that his private collection of dried plants numbered approximately 15,000 specimens (9,000 mounted numbers and about 6,000 unmounted duplicates). The great

majority of species are Tasmanian; but many others are from the S.E. Australian mainland (eastern and northern Victoria and New South Wales), including introduced weeds and some garden plants. A smaller percentage are donations from Central Australia, the Kimberleys, Britain, Belgium, Canada and a few other parts of America. No cryptogams, other than ferns and clubmosses, are included.

Following the return from war service in Australia of Canadian botanist, Dr. Bernard Boivin who had inspected Black's "*Hortus siccus*", negotiations for its eventual disposal were begun on 12 November 1946 with Professor Elmer D. Merrill of the Arnold Arboretum, Massachusetts (U.S.A.). An offer was also sought from Sir Edward Salisbury, Director of the Royal Botanic Gardens at Kew; but it was felt that, if possible, the collection ought to remain in Australia. Overtures were later made with Canberra and Hobart, but Black's high valuation drew little response. Finally, on 3 August 1957, this notable collection was purchased for the National Herbarium of Victoria at a price of £300.

Specimens have been well selected, all items are meticulously and neatly annotated, and there is an accompanying card index to species by which the position of any collection in a box can be quickly found through a system of reference numbers. Systematic arrangement of material followed that of L. Rodway's *Tasmanian Flora* (1903). In addition to dried botanical specimens, the collection includes a mounted set of sections (transverse, radial and tangential) of Tasmanian timbers, carefully prepared through the years in Mr. Black's workshop.

The information, brought together in this account, was obtained by conversations that the writer had with R. A. Black over a period of 25 years' friendship, through his various published articles, and from records left with his herbarium. The writer is also grateful to Mr. Thorby H. Black (elder son) for checking certain facts regarding his late father and for kindly perusing the ms. before it went to press.